WHAT IS CLAIMED IS:

1. A distortion compensation system for use in an imaging device projecting an image with a plurality of portions onto a subject, the system comprising:

a plurality of light-distance modulators corresponding to the plurality of image portions;

a mechanical manipulator for individually manipulating each of the light-distance modulators;

whereby any distortion in the subject is compensated by the individual manipulation of the light-distance modulators.

2. The system of claim 1 further including:

a sensor for detecting an amount of the distortion in the subject and providing indication of the amount to the mechanical manipulator so that the light-distance modulators can be manipulated according to the amount.

3. The system of claim 2 wherein the imaging device is a scanning device and the mechanical manipulator is operable to manipulate the modulators while the imaging device is scanning.

4. The system of claim 2 further comprising:

a first light source for providing an imaging light and a second light source for use by the sensor.

5. The system of claim 4 further comprising:

an optical device for combining the first and second light sources and directing the combined light sources towards the subject.

6. An optical system for use with an image source for projecting an image onto a surface having a surface plane, the system comprising:

a first optical device corresponding to the surface plane and spaced from the surface plane at a predetermined distance, the first optical device including a plurality of individual distance modulators each for receiving a portion of the image and reflecting the image portion to a portion of the surface, each modulator individually adjustable to modify the distance between it and the surface plane; and

a second optical device for receiving the image and directing the image towards the first optical device.

7. The system of claim 6 further comprising:

a third optical device for sensing a distortion in the surface and providing information according to which the modulators of the first optical device should be adjusted.

8. The system of claim 6 further comprising:

a light source for projecting a light for display on the surface and reflection back to the third optical device, the light source being separate from the image source.

9. The system of claim of claim 6 wherein the third optical device is a Shack-Hartmann wavefront sensor and the second optical is a beam splitter.

10. A system for projecting an image onto a surface, the surface having first and second portions that are not planar with each other, the system comprising:

a first light source for projecting a first light;

a mask comprising first and second mask portions for converting the first light to first and second images, respectively;

first and second lens subsystems corresponding to the first and second images and the first and second surface portions, respectively; and

first and second support structures for individually positioning the first and second lens subsystems and mask portions, respectively, so that a depth of focus for the first and second images can be individually adjusted for the corresponding surface portion.

11. The system of claim 10 wherein the first support structure includes a micro-manipulator to provide variable adjustments to the orientation of the first lens subsystem.

12. The system of claim 11 wherein the micro-manipulator is a piezo-electric vibrator.

13. The system of claim 11 wherein the micro-manipulator moves the first lens subsystem in a direction that is perpendicular to a plane associated with the first surface portion.

14. The system of claim 11 wherein the micro-manipulator moves the first lens subsystem in a radial direction, compared to a line that is perpendicular to a plane associated with the first surface portion.

15. The system of claim 11 further comprising:

a sensor for detecting a position of the first surface portion for us in the adjustment of the micro-manipulator.

16. The system of claim 15 further comprising:

a scanning system for moving the subject relative to the mask; and

a computer for receiving an output from the sensor and controlling the micro-manipulator according to the output while the subject is being moved by the scanning system.

17. The system of claim 15 further comprising:

a second light for reflecting off the first and second portions of the surface and for use by the sensor; and

an optical device for combining the first and second lights.

19. The system of claim 17 wherein the second light is ultra-violet.

20. A digital photolithography system for projecting an image onto a surface having first and second portions, the system comprising:

a first light source for projecting a first light;

first and second digital pixel panels for converting the first light to first and second images, respectively;

first and second lens subsystems corresponding to the first and second images and the first and second surface portions, respectively; and

a first micro-manipulator for individually positioning the first lens subsystem so that a depth of focus for the first image can be individually adjusted for the corresponding surface portion.

21. The system of claim 20 further comprising:

a second micro-manipulator also for positioning the first lens subsystem;

wherein the first micro-manipulator is capable of moving the first lens subsystem in a first direction that is perpendicular to a plane associated with the first surface portion, and the second micro-manipulator moves the first lens subsystem in a second direction that extends radially from the first direction.

22. The system of claim 21 further comprising:

a second light source for producing a second light;

a beam splitter for combining the first and second lights;

a distortion detection system for receiving a reflection of the second light from the first portion of the surface and for controlling the movement of the first and second micro-manipulators accordingly.